What is claimed is:

1. An electrode-built-in susceptor comprising:

a susceptor base member which is made of an aluminium-nitride-group-sintered-member on one of which surface a plate sample is mounted;

an inner electrode which is built in the susceptor member; and

a power supplying terminal which is disposed in the susceptor base member so as to be attached to the inner electrode, wherein

the power supplying terminal is made of a conductive aluminium-nitride-tantalum-nitride-composite-sintered-member.

2. An electrode-built-in susceptor according to Claim 1 wherein the susceptor base member is formed by a mounting plate which is made of a aluminium-nitride-group-sintered-member on one of which main surface a plate sample is mounted and a supporting plate which is made of a aluminium-nitride-group-sintered-member which is attached to the mounting plate unitarily.

3. An electrode-built-in susceptor according to Claim 1 wherein the inner electrode is made of a conductive aluminium-nitride-tantalum-nitride-composite-sintered-member or a conductive aluminium-nitride-tungsten-composite-sintered-member.

4. An electrode-built-in susceptor according to Claim 1 wherein the aluminium-nitride-tantalum-nitride-composite-sintered-member contains a tantalum-nitride having 58 to 98 weight percent.

5. An electrode-built-in susceptor according to Claim 3 wherein the aluminium-nitride-tungsten-composite-sintered-member contains a tungsten having 58 to 80 weight percent.

6. Method for manufacturing an electrode-built-in susceptor comprising the steps of:

making a mounting plate for mounting a plate sample thereon and a supporting plate for supporting a mounting plate by a aluminium-nitride-group-sintered-member;

forming a through hole on the supporting plate;

inserting a power supplying terminal which is made of a conductive aluminium-nitride-tantalum-nitride-composite-sintered-member in the through hole so as to fix the power supplying terminal therethrough;

applying a member which contains a conductive powder on a main surface of the supporting plate such that the conductive powder contacts the power supplying terminal;

attaching the mounting plate to the supporting plate via the member which contains the conductive powder;

heating the mounting plate and the supporting plate under a compressed-atmosphere condition so as to form an inner electrode between the supporting plate and the mounting plate unitarily.

7. Method for manufacturing an electrode-built-in susceptor comprising the steps of:

making a green body for a mounting plate for mounting a plate sample thereon and a green body for supporting the mounting plate by a slurry which contains an aluminium-nitride-group-powder;

forming a through hole on the green body for the supporting plate;

filling a aluminium-nitride-tantalum-nitride-composite-sintered-member as a power supplying terminal in the through hole;

applying a member which contains a conductive powder on a main surface of the green body for the supporting plate such that the conductive powder contacts the aluminium-nitride-tantalum-nitride-composite-sintered-member;

attaching the green body for the mounting plate to the green body for the supporting plate via the member which contains the conductive powder;

heating the green body for the mounting plate and the green body for the supporting plate under a compressed-atmosphere condition so as to form an inner electrode between the supporting plate and the mounting plate which are made of an aluminium-nitride-group-sintered-member unitarily.